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Making Mindfulness explicit in Design Education

Fernando ROJAS, Stuart ENGLISH, Robert YOUNG and Nick SPENCER

Northumbria University

f.rojas@northumbria.ac.uk; stuart.english@northumbria.ac.uk; robert.young@northumbria.ac.uk;
nick.spencer@northumbria.ac.uk

Abstract: *As new approaches to Design Thinking emerge, mindfulness and other related abilities are discussed as skills that should be made explicit in Design Education. Research on the topic of mindfulness spans about four decades in various fields of study and several streams of research approaches have expanded the ways it is described. Diverse human qualities that are associated with these practices are also deemed important for designers. Whilst this is so, Design literature does not appear to explore detailed ways to integrate it into design-learning environments. This propositional paper seeks to establish the conceptual approach behind the argument that a Systemic-Mindfulness-Device (SMD) can make the role of mindfulness explicit in Design Education and enhance a designer's inner awareness. Inner awareness is considered fundamental to also enhance awareness of our relations with others and with the world, which is important for emerging participatory and co-design contexts. That being said, it is also reasonable to assert that all Design choices have a relational aspect to it, whether explicitly as co-design or in more traditional contexts. A SMD is understood as a reflective tool embodying and merging mindfulness, mapping, and systems thinking in order to blend mindfulness into designerly processes of learning.*

Keywords: *mindfulness; systems thinking; visual mapping*

Introduction

Thinking about Design ranges from considering 'small' problems such as aesthetics, image and fashion, to Design Thinking as an approach to designing participatory systems that tackle 'big' issues with design briefs that aim to manage subjects like global warming (Brown, 2009). Juul-Sørensen (2014) calls this designing for the 99% of people for whom a luxury product is clean water as opposed to an expensive handbag. This 'big' issue Design Thinking is increasingly the approach to Socially Responsible Design (Young, 2012). In these approaches, designers come together with stakeholders to achieve innovative system models that rely on new skills, including mindfulness (Howard & Melles, 2011). Owen (2007) considers these new skills to be tacit in Design Education and suggests the need for them to be taught explicitly as Design competencies. Young (2012) concurs with this view that the role of mindfulness can be made more explicit. Rojas (2013) suggests that Design Education may profit from the inclusion of mindfulness to cultivate cooperative human qualities. He proposes that:

If mental training disciplines that aim to ultimately foster cooperative human qualities can be inserted within existing structured reflective disciplines in an educational context, then rising design students may progress into professional endeavours with higher potential of making more sustainable and socially responsible choices (ibid, p. 1).

Mindfulness and related concepts are found in Design literature in several relevant contexts. Young (2012) suggests that such practices may promote trust and empathy and help address ethical behaviour considerations that support social responsibility. Niedderer (2013) describes mindfulness as a mindset that considers different perspectives and as key for designing for behaviour change. Vyas & Young (2011) claim that it promotes more co-owned Design output that addresses real human needs. And Vyas (2014) has investigated if mindfulness can also promote virtues associated with eco-centricity in co-design teams. Others have contrasting views on these social and ethical considerations. Stairs (2009), for example, considers the outpour of interest in socially relevant design as trendy, and suggests that there must be an increase of design sales because of the fetishizing of social relevance. Akama (2012) highlights the central role of Design in influencing ideas and behaviours, thus making what's 'right', 'desirable' or 'admirable' an important Design concern. At the same time she critiques discourses that attempt to embed ethics within Design and views them as a way of abstracting values and imposing ideology. She emphasizes the importance of forging aware relational connections that bring forth openness, empathy and mindfulness and offers a view on the prospective impact of awareness of self, others and the world:

True, long-term sustainable change towards building and creating an ethical practice cannot come from being told what to design or choosing the 'right' values to adopt. Neither does it come from simply undertaking community-based projects, taking up a social cause or deploying participatory methods. [...] It requires active creation and the practising of practice that is truly human-centred and aware – aware of oneself, of others

and the world we live in. It is a day-to-day application and manifestation, not merely a mechanical repetition. The significance of this being a practice is that it is a transformation and evolution of ourselves in bringing an awareness and embedded-ness to what we do everyday (ibid: p. 1).

She makes a vital point that ideological arguments place overstated ethical judgment calls on designers when agendas, people and politics also determine Design outcomes. Instead of 'rationalistic ethical design discourse of axiomatic moralistic injunctions', she proposes self-awareness and transformation through interconnectedness, self-awareness and reflection (ibid, p. 7). Akama & Light (2015) see mindfulness, not as a goal, but as a pathway for self-realization and a discovery of new ways of relating to others. If we adhere to this view that steers away from abstracting values or imposing ideology, and that considers potential transformation through a kind of reflective self-awareness, then the merits of such view should be explored in order to support the reasoning behind a SMD. In order to construct this argument, this paper first explores descriptions of mindfulness and related terms in Design literature and in other fields. This analysis, complemented by notions of mapping and systems thinking relevant to Design, will then yield a rationale for the construct of a SMD. And finally, a preliminary view of the implementation of an early version of a SMD to a design-learning task will be described.

Overview of mindfulness and related concepts

This section examines ways in which mindfulness and other related concepts (such as meditation, presence, awareness, attention, consciousness, stillness, reflection, focus and relationality) are described in Design and in other fields; explores how these are relevant to Design concerns; and synthesizes a material definition of mindfulness that will help frame the rationale of a SMD.

Spencer (2008) considered the benefits a designer may gain from meditative practices including conceptions of stillness and mindfulness. In his work, stillness is described as a shift in perspective that fundamentally changes, to a non-attached way, the manner in which we relate to arising experience and to the objects of our perception; and mindfulness is understood as a non-judgmental way to notice the nature of experience and to engage the practitioner fully in the present moment. He extracted a number of benefits relevant to designers that are associated with such disciplines. Some of these are: presence, focus, empathic recognition leading to skilful interactions and effective interpersonal relationships, sustained attentive awareness, and reduced hazy states of mind. He concludes that such mental states help draw attention to tacit desires, attachments or aversions, and assist in letting go of attachments thus balancing the way designers respond to a Design situation. Rojas, Spencer & English (2012) sought to improve understanding about the dynamic development of designers' professional self-awareness. They introduced the concept of stillness, framed as a competence of Design Intelligence that is displayed during uncertain situations of Design practice. Stillness in this case is defined as mindful awareness and reduced habitual reaction, and their claim is that by experiencing this state of mind, a designer's perception is less fixated, thus becoming open to the full potential of Design situations and transforming themselves and the world through Design.

Akama & Light (2015) frame a description of mindfulness against the notion of mindlessness when designing. This view highlights a reflective and collective awareness of our relational existence in broad ecologies. They use the term 'reflection' contrasting it to critical reflection, in that mindful open-ended reflection is reflection undertaken as mindfulness, where reflection itself is experienced and not used to reflect *on* experience. Furthermore, they suggest that mindlessness in living and in designing may lead to poorly considered ecological outcomes. In their view, designing makes an unaware contribution to a disconnected view of how our lives are implicated with other constituents of the world, thus causing systemic impact and unsustainable futures. From their perspective, designing mindfully may raise awareness of unsustainable impacts and possibly promote a less materialist culture. Young et al. (2001) relate similar views to the context of Design Education. They suggest that the current focus of Design disregards wider social implications and that we need to be **mindful of our unconscious world-views and our tacit assumptions**. Furthermore, they suggest a new approach to Design Education that embraces the challenge of **realigning designers' values** so that Design can act as a catalyst for positive, sustainable change that honours a world we would want for future generations.

This call for action to create systems that address issues of social responsibility and sustainability is multidisciplinary and other fields share complementary points of view with Design Thinking in this sense. Goleman (2013), for example, proposes that a slow-motion systems crash is approaching because of how human systems affect global systems that support life. He further suggests reinventing business for the long future by finding shared values that support all stakeholders. Scharmer & Kaufer (2013) speak of a shift from ego-system to eco-system awareness that involves walking in the shoes of other stakeholders by developing the capacity to suspend old habits of thought, to see the world with fresh eyes, and to empathize by seeing situations through the eyes of someone else. Capra & Luisi (2014) define a sustainable society as one that 'must be designed in such a way that its ways of life, businesses, economy, physical structures, and technologies do not interfere with nature's inherent ability to sustain life' (p. xi). In their point of view, societies need to understand that the material world is a network of inseparable patterns of relationships and that the planet as a whole is a living, self-regulating system.

Young (2012) proposes that *metic* tendencies, which are relevant to mindlessness, are part of Design's current dysfunctions. These attributes in designers may lead to ambiguity, subterfuge, loss of empathy and distrust in the design process. *Metic* intelligence is described by Raphals (1992) as an attitude of mind or mode of action acquired through long practice of repetition of similar tasks, and frequently displayed without conscious deliberation. It is a 'knack' or ability to respond spontaneously to changing circumstances that is often associated with trickery, cunning, obliqueness and deception. Alternatively, it can also be viewed as a resourceful intelligence, fused with moral qualities and harnessed in the service of a legitimate cause. This fluid ability is akin to the tacit skills acquired overtime through design learning and practice in the continuous engagement with design's ambiguity and uncertainty. Young (ibid) likens it to the concept of 'artistry', defined by Schon (1991), as a competence displayed by designers in unique, uncertain and conflicted situations of practice.

The way *Metic* tendencies show pertinence to mindlessness is in that their expression may display, to a certain degree, a lack of conscious deliberation. A point of view from the field of Psychology by Langer (2014) on mindlessness supports this notion. She says that we tend to mindlessly cling to rules and categories through repetition and practice. Mindfulness literature

in other fields suggests that we are all, at any given moment, either mindful or mindless; and that mindfulness is awareness devoid of judgment or of single-minded labelling, cultivated by paying attention in a particular way (Kabat-Zinn 2005; Langer 2004). According to Djikic (2014) the purpose of mindfulness is to address mindlessness, which is associated with: (1) a lack of choice that stems from being dominated by old categories, and (2) a serious and dangerous mismatch between well-entrenched cognitive categories and the emerging (and rapidly changing) world. In other words, a kind of 'autopilot' approach with rigid biases and predetermined rules that may resist the ever uncertain and changing nature of reality (Yeganeh & Kolb, 2009). This is akin to the ambiguous and uncertain nature of designing.

A vast body of literature exists in a variety of fields on the topic of mindfulness. This practice originates from Eastern traditions and is interpreted and applied to Western research mostly with a focus on it's potential benefits on physical and mental health, as well as on the suggested emergence of human qualities like: empathy (Shapiro et al. 1998; Krasner et al. 2009), spontaneous non-egocentric action (Rosch 1997), social connectedness (Hutcherson et al. 2008), compassion and eco-centricity (Austin 1999). The term 'mindfulness' is used both to describe a process as well as it's result. Mindfulness (as a mind state) is cultivated by practicing mindfulness (as a method). In the Buddhist tradition Nhat Hanh (1976) explains it like this:

Mindfulness is at the same time a means and an end, the seed and the fruit. When we practice mindfulness in order to build up concentration, mindfulness is a seed. But mindfulness itself is the life of awareness: the presence of mindfulness means the presence of life, and therefore mindfulness is also the fruit (ibid, p. 14).

Terms such as: meditation, awareness, attention, concentration, observation, consciousness and focus, are used interchangeably to contextualize and refer to what this attitude of mind is, or can be. And, while the term 'mindfulness' may not be used explicitly or as the main term in all contexts, literature in topics of leadership and social innovation refer to relevant terms such as 'awareness'. In this sense Scharmer and Kaufer (2013) state:

The quality of results produced by any system depends on the quality of awareness from which people in the system operate. The formula for a successful change process is not 'form follows function', but 'form follows consciousness'. The structure of awareness and attention determines the pathway along which a situation unfolds (ibid, p. 317).

Goleman (2013) makes a similar point:

Systems awareness helps us grasp the workings of an organization, an economy, or the global processes that support life on this planet (ibid, p. 4).

Mindfulness as a method is a form of training attention, and well-developed attention skills have been linked to high-levels of performance and excellence (Wallace 1999; Goleman 2013). Through mindfulness practice, the areas of the brain that control attention become structurally improved and activated (Lazar et al, 2005; Austin, 1999). Moreover, studies in the field of Physics suggest that the act of paying attention not only has a direct effect on what is observed, but it is part of the nature of its reality. Particles at the quantum level exist only as potential, or 'tendencies to exist' until observed, and their properties can only be understood

in terms of their interaction with the observer (Capra, 1982). A series of studies known as the Princeton Engineering Anomalies Research (PEAR) have suggested that 'reality is created by each of us only by our attention' (McTaggart 2001).

Literature recognizes two predominant streams of mindfulness research and practice: meditative mindfulness and socio-cognitive mindfulness (Yeganeh & Kolb, 2009; Djikic, 2014). Meditative mindfulness is associated to work like that of Kabat-Zinn (1990), which is influenced by traditional Buddhist meditation and where the breathing cycle or body sensations are used as objects of attention deliberately observed throughout sustained discipline overtime. Recognizing the 'Observing-Self' (Deikman, 1982) is another known approach that claims that to the extent that we are able to observe the contents of our consciousness, we are no longer completely embedded in or fused with such content (Shapiro et. al, 2006). Suggested human qualities of mindfulness such as social-connectedness and eco-centricity as mentioned, are generally associated with research in meditative mindfulness.

Langer (2000) defines socio-cognitive mindfulness as a process of 'drawing novel distinctions', with emphasis on situational awareness and context. She clarifies that whilst the qualities of mindfulness as emerging from this work are 'strikingly' similar to Eastern concepts, this definition of mindfulness does not consider the moral idea that a mindful state leads to spontaneous right action (Langer, 2014). She does, however, conduct research that suggests a non-dualist view of the mind and the body (Langer, 2009), which is relevant in Eastern philosophical contexts. In this approach the mindfulness techniques revolve around actively noticing 'new things' or differences about a familiar object, person, situation; engaging in new ways with habitual or skilful action; and embracing uncertainty through relabeling absolute or unconditional truths as probability statements. Yeganeh & Kolb (2009) describe other supplemental practices of socio-cognitive mindfulness such as: placing value on doubt, looking for disconfirming data and producing new ways of thinking and acting. A way to contrast these two approaches to mindfulness is that, meditative mindfulness suggests effects that arise overtime and post-practice, and socio-cognitive mindfulness claims an immediate heightened state of involvement and wakefulness or being in the present (Langer, 2000).

Nonetheless, traditional Eastern approaches do promote a kind of 'attention-in-action' that is pertinent to the situational context of socio-cognitive mindfulness. Time-honoured meditative practice is often associated with sitting in place for a period of time while engaging with objects of attention. It is a kind of introspective journey of cognitive perception. This is attention training that results in post-practice effects that 'slowly permeate your life' (Spencer, 2008: p.315). Yet, these traditions have many examples of situational 'attention-in-action' mental training as well. Zen Buddhism practices such as walking meditation, archery, calligraphy and tea ceremonies seek to perfect performance through present-moment engaged action. Still, the teachings extend further to common daily experience. Nhat Hanh (1976) teaches that:

There are two ways to wash the dishes. The first is to wash the dishes in order to have clean dishes and the second is to wash the dishes in order to wash the dishes (ibid: p. 4).

These teachings aim to train a person to actively attend to the details of their immediate experience of action engagement as they emerge. This attention training attempts to remove the need to prioritize and/or focus on outcome, and assigns value to enhanced awareness of the process as it unfolds. The socio-cognitive approach for mindful engagement leads to the

same result through an alternate view of the process. In this approach, the effort to elicit being in the present throughout the action, is not by deliberately focusing on the process details as they emerge, but through seeking novel distinctions in, and of, a process that is usually familiar and habitual; or where 'rules and routines are more likely to govern or over-determine our behaviour' (Langer, 2000). Whether novelty is eventually recognized is irrelevant because the process of seeking novelty is what promotes mindful awareness.

Returning to Design concerns, a Design approach known as Mindful Design has as its base the theories of socio-cognitive mindfulness. The concept of Mindful Design has been introduced by Niedderer (2013) to 'describe how design objects can be designed to facilitate mindful attention of the physical and social actions within which they are used and of the consequences of these actions' (p.4567). This view frames Mindful Design in relation to existing approaches of design for behaviour change and expands the understanding of socio-cognitive mindfulness through modifying expected functions of objects. In this case, awareness is created by the 'physical or symbolic disruption' of a designed object's function. She explains that:

Mindful Design facilitates a process of conscious decision making by creating awareness of one's own behaviour and shifting the focus from an external to an internal locus of control through mindful reflection (ibid: p. 4567).

The way this mindfulness approach adapts it's socio-cognitive mindfulness base, is that the unexpected new or omitted feature of the designed object is the cause for the situational change in attention. This mechanism differs from encouraging a voluntary and deliberate engagement with an object of attention, to a disruption in habitual perception through omission of an expected function, or addition of an unexpected one. Whilst this is an explicit understanding of mindfulness, its focus is to have an effect in users of a design as opposed to designers.

Akama (2014) brings to design discourse the Japanese concept of 'Ma', which is parallel to the concept of mindfulness. She describes it as a way to awaken our senses to the 'in-betweens of design', which 'often fall out of conscious attention'. Her claim is that this is central to designing with others. Generally Ma is understood as gaps, pauses, and spaces between; but also as a definition of 'self' as a function of relations with others as opposed to an isolated entity. This between-ness refers to how relationality is experienced or perceived, and more importantly, she claims, it helps to build awareness of the multiple dimensions in which designing takes place. She describes the process as an attuning to the relational dynamics to turn attention and awareness towards the concerns and movement of the collective, situating the designer in 'inter-relatedness – designing, transforming and becoming' (ibid, p. 4).

This awareness of relationality is relevant to a very useful model of awareness from a field called Interpersonal Neurobiology. This field explains the science behind the notion that the internal attunement and self-regulation of mindfulness actually fosters interpersonal benefits (Parker, Nelson, Epel & Siegel, 2015). This implies, that whilst all the suggested effects of mindfulness have relational relevance, it is through transformation of individual inner awareness that this is accomplished. Malik (2009) supports this view and asserts that all global change has as its basis the shift of consciousness of the individual. So far, this paper has reviewed many different ways in which mindfulness is described, understood and applied. The

concept of 'integration' (Siegel, 2010), from the field of Interpersonal Biology captures a scientifically sound synthesis of mindfulness that fits well with the material description sought in this discussion. This will be explored in the next section against notions of systems thinking and mapping to create a rationale for the SMD.

This section will conclude with a basic description of mindfulness as understood by this paper. From the reviewed literature, it is reasonable to suggest that the basic components of mindfulness are attention and awareness. Mindfulness, as a method, is a way to pay attention that is deliberate, usually to a chosen object of attention, and with the intention of it being non-judgmental, or objective. It is possible to practice mindful awareness of any aspect of any process, as well as to just attempt to reach an open state of awareness of anything that emerges into the field of attention. This is also known as presence (Parker et al., 2015). For this discussion, mindfulness is understood as a deliberate way to sustain attention of inner aspects, in other words inner awareness. Such inner awareness can be of aspects of the body such as sensations or awareness of processes (like breathing), as well as an objective exploration of processes of the mind, or of perception. The initial proposition of the Systemic-Mindfulness-Device, as it will be explained, considered personal and professional Design values as the explored objects of attention, and as integrated systemic elements. The next section will consider this basic view of mindfulness and complement it with notions of systems thinking, mapping and integration to consolidate a rationale of the SMD as proposed.

Integration, systems thinking, mapping and values

Siegel (2010), as one of the leading voices of Interpersonal Neurobiology, has proposed a model of what he calls consciousness integration. Integration in his work is a multidisciplinary theory relevant to systems thinking and complexity theories. This field asserts that: (1) a system is composed of individual parts that interact with each other; (2) this system is optimized when it is integrated; (3) integration means that individual components are differentiated (their uniqueness is honoured), and then linked; (4) optimization of the system leads to self-organization and the emergence of properties which are more than the sum of its parts. Siegel's model of consciousness integration takes the form of a visual metaphor called the 'Wheel of Awareness' that views the mind as an emergent property of the activity of neural linkages and relationships (or relationality as discussed in this paper).

This model integrates consciousness through an attention and awareness process (akin to mindfulness) that seeks to integrate aspects of an individual's perception through differentiation and linkage of such aspects. These elements radiate out of a 'hub' of awareness that allows the exploration of the objects of awareness against awareness itself. Siegel describes this inner awareness process as a reflective practice of focusing internal attention on the mind with openness, observation and objectivity. He claims that it is relevant to relational dynamics in that mindfulness promotes neural integration out of which emerge prefrontal brain functions such as intuition, attuned communication, and empathy among others. The Systemic-Mindfulness-Device is founded on this theory of integration viewing the inner aspects of a designer as a system and adapting it to aspects relevant to Design.

The SMD is a visual model, which is uniquely relevant to the language of design. Owen (2007) asserts that all designers work visually and bring common view to concepts otherwise imagined uniquely by members of a group. Vaughan & Akama (2009) advocate visualization as

a way to frame and communicate knowledge discovery within the language and actions of design. English (2009) has reported on the value of integrated visual maps for exploring complexity through multiple perspective problem framing. He contends that such visualizations influence designer awareness and may represent the cognitive structure of a designer. Furthermore, he claims that the process facilitates reflective self-exploration, considers the design space from different points of view and reveals potential for agreement by integrating conflicting points of view in design situations that incorporate different stakeholders (ibid). Also, visual maps are described in Design in ways relevant the relational linking of differentiated aspects of systems. Sevaldson (2001) says designers use visual thinking to create generative diagrams that establish relations between described entities; and English (2008) describes relational ways of seeing to map design space in order to see ambiguous concepts concurrently from different perspectives. Stevaldson (2013) proposes the approach of Systems Oriented Design using rich visual maps to actively inquire systemic interrelations. Systems thinking literature refers to such relations as interactions from which an ecological awareness of systemic qualities emerge (Stowell & Welch, 2012). They suggest that 'a system's existence is essentially a description of systemic qualities perceived by an observer - whether this person is a creator or user of that system' (ibid: p.13). If a system's existence is fundamentally a description of such interrelations, then a rigorous understanding of a system must include awareness of its multiple aspects and their relationality. Visual mapping seems to be efficient in aiding to capture, consider and establish interrelations of aspects of a system and promote exploration that is generative, reflective and relational.

In synthesis, the SMD is a visual tool of integration of a designer's professional inner awareness. If inserted in designerly ways of learning, it makes mindfulness explicit in Design Education. The last elements to describe in this rationale of the SMD are the aspects of the system as relevant to Design. Siegel's Wheel of Awareness is composed of an awareness hub in the centre, and of aspects of individual perception at the rim. The SMD is proposed as a visual map where the 'hub' is represented by a designer's observing-self from where important aspects of inner awareness of a designer radiate. And these aspects of inner awareness to be integrated are designer's personal and professional values (understood as a designer's judgment of what's important and standards of behaviour).

Values are important in Design and other fields. Goleman (2013) says that inner focus attunes us to our guiding values. Langer (2014) asserts that values create a context that influences sense perceptions. Schon (1987) points to the dissatisfaction of failing to recognize and respond to one's own value conflicts. Young et al. (2001) speak of the challenge of realigning designers' values for the benefit of future generations. Lawson (1997) states that design inevitably involves subjective value judgement and explains that questions about which are the most important problems, and which solutions most successfully resolve those problems, are value laden. He further describes 'guiding principles' as operating ideas, beliefs and values that develop over a Design career. Akama (2008) found that values emerge and are inscribed in designers' practices, yet also that to be able to become reflective of the values of others it is necessary to be self-aware of one's own.

In this light, the SMD views a designer's inner awareness of values as a system. The individual aspects constituting this system are the designer's values, everything that is now important including in the role as designer. These aspects radiate out of a centre 'hub' which is represented by an observing-self, or an observing-design-self; which is understood as the entity that differentiates (honours the uniqueness), and then links (highlights the relationality)

of the distinct components. Recognition of the observing-design-self may aid to discern the state of being aware from that which we are aware of (Siegel, 2010).

Conclusion

In conclusion, a Systemic-Mindfulness-Device is a visual tool that merges mindfulness with designerly ways of learning to make mindfulness explicit in Design Education. The SMD rationale accomplishes this by viewing a designer's inner perception as a system to be integrated, where personal and professional values are the aspects of such system radiating from an awareness 'hub' pertaining to the designer's observing-self. If designers are part of the Design problem (Spencer, 2008), then a designer's values must influence directly all aspects of the designing process. To view a designer's value system as the systemic aspects of a designer's inner awareness in a process of integration can lead to important results. Firstly, Lawson (1997) asserts that guiding principles not only are at the root of the satisfaction designers take from their work, but he argues that it is the existence of these ideas that allows us to see Design as a form of research. Furthermore, he believes they are the source of 'primary generators' in a Design project. If designers are designed by designing (English, 2009; Vaughan & Akama, 2009b), and if they transform themselves and the world through Design (Rojas et al., 2012), a direct way of making that process explicit and seeing the evolution of our own Design-Self (Rojas, 2013) is by a disciplined process of reflective engagement with a SMD.

In preliminary observations of engagement with an early version of a SMD, first-year graphic design students were given the visual tool as a Design Thinking academic exercise of the investigation phase of a Design process. The instructions were to map what's important now, including in the role as designer as one of the primary nodes; and radiating from a centre observing-self node. That information was treated then as an investigation into the designer as a design project in itself, where values emerge out of deep self-observation, and inform a Design outcome. A personal symbol and the map itself are ultimately Design artefacts. This process follows the SMD model as described and combines teaching of a tool of Design problem framing in the style of Integrated Mind Maps (English, 2009). During the process of investigation students were instructed to generate multiple sketches as they explored their values with mapping. The final map needed to clearly show the observing-design-self from where value topics radiated; a clear hierarchy of perceived importance of topics where the designer role is among the primary ones; and relational connections of nodes across topics. In this exercise, it is clear that an academic Design activity is seamlessly blended with mindfulness process that promotes deep self-observation, awareness of the process of awareness, and systemic integration of inner aspects of a designer. Figure 1 shows an exemplar where a design student explores, demonstrates hierarchy, and highlights relationality of personal and professional Design values.

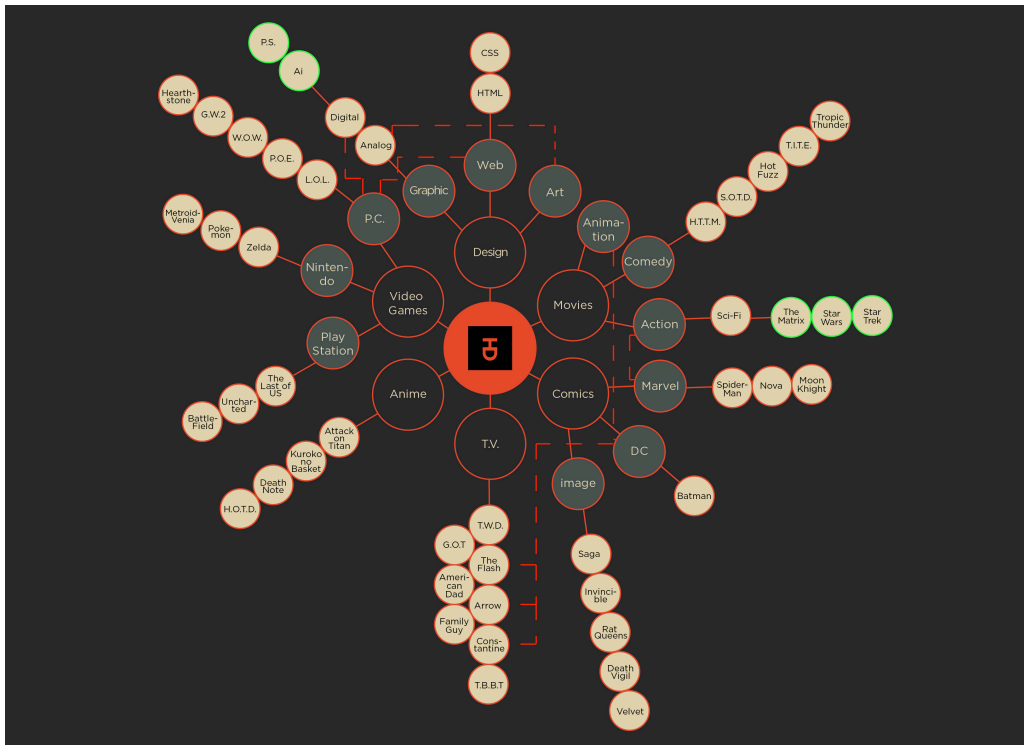


Figure 1 Zayas (2015) SMD exemplar. A common reflection by students upon experiencing the model was that 'things' were extracted about themselves that they did not know were there.

Future research will seek to understand if a designer's inner awareness is transformed by reflective engagement with a SMD. If designers are designed by their designing, then this should reflect in a transformation of Design values overtime. If this transformation is made explicit, then this contributes to the notion of Design as a form of research as well as making the process and effects of mindfulness also explicit in Design Education.

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